

LadHyX Seminar – June 30th, 11:00

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The Hidden Life of Ice

In this talk, I will present key findings from two decades of research on the melting of the Antarctic and Greenland ice sheets and the resulting implications for global sea level rise. I will highlight the range of methodological approaches employed—including remote sensing, modeling, and fieldwork—as well as the physical processes driving the accelerating mass loss of the Greenland ice sheet. Special attention will be given to often-overlooked processes that, while invisible to the naked eye, play a critical role in this acceleration. These include the formation and evolution of cryoconite holes, mineral and biological signatures, grain size metamorphism, and atmospheric teleconnection patterns. Finally, I will discuss the broader global consequences of Greenland’s rapid ice loss, focusing on rising sea levels, impacts on ocean ecosystems, and the urgent need for adaptation and mitigation strategies for socially vulnerable populations.